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<p>(21) International Application Number: PCT/GB00/00529 (22) International Filing Date: 16 February 2000 (16.02.00) (30) Priority Data: 9903853.1 20 February 1999 (20.02.99) GB 9916099.6 10 July 1999 (10.07.99) GB 9917171.2 23 July 1999 (23.07.99) GB (71) Applicant (for all designated States except US): AS-TRAZENECA AB [SE/SE]; S-151 85 Södertälje (SE). (72) Inventors; and (75) Inventors/Applicants (for US only): TUCKER, Howard [GB/GB]; Alderley Park, Macclesfield, Cheshire SK10 4TG (GB). LARGE, Michael, Stewart [GB/GB]; Alderley Park, Macclesfield, Cheshire SK10 4TG (GB). OLDFIELD, John [GB/GB]; Alderley Park, Macclesfield, Cheshire SK10 4TG (GB). JOHNSTONE, Craig [GB/GB]; Alderley Park, Macclesfield, Cheshire SK10 4TG (GB). EDWARDS, Philip, Neil [GB/GB]; Alderley Park, Macclesfield, Cheshire SK10 4TG (GB).</p>	<p>(74) Agent: TIERNEY, Francis, John; AstraZeneca, Global Intellectual Property, P.O.Box 272, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4GR (GB). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). <b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>	
<p>(54) Title: DI- AND TRIPEPTIDE NITRILE DERIVATIVES AS INHIBITORS OF CATHEPSIN L AND CATHEPSIN S</p> <div style="text-align: center;"> <math display="block">\text{R}^1-(\text{AA}^1)_r-(\text{AA}^2)-\text{N} \begin{array}{l} \text{R}^2 \\ \text{R}^3 \\ \text{CN} \end{array} \quad (1)</math> </div> <p>(57) Abstract</p> <p>A compound of formula (I), wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, AA<sup>1</sup>, AA<sup>2</sup> and r are defined; a composition comprising a compound of formula (I) and a carrier or diluent; a compound of formula (I) for use as a medicament; the use of a compound of formula (I) in the manufacture of a medicament for use in the inhibition of a cysteine protease in a warm blooded animal; the use of a compound of formula (I) in the manufacture of a medicament for use in the treatment of chronic obstructive pulmonary disease in a warm blooded animal; and a method of treating a Cathepsin L or Cathepsin S mediated disease state in mammals which comprises administering to a mammal in need of such treatment an effective amount of a compound of formula (I).</p>		